Populus deltoides - (Salix amygdaloides) / Salix exigua Woodland

COMMON NAME Eastern Cottonwood - Peach-Leaf Willow / Narrow-Leaf Willow Woodland

SYNONYM Cottonwood - Peach-Leaf Willow Floodplain Woodland

PHYSIOGNOMIC CLASS Woodland (II)

PHYSIOGNOMIC SUBCLASS Deciduous woodland (II.B)

PHYSIOGNOMIC GROUP Cold-deciduous woodland (II.B.2)

PHYSIOGNOMIC SUBGROUP Natural/semi-natural (II.B.2.N)

FORMATION Temporarily flooded cold-deciduous woodland (II.B.2.N.b.)

ALLIANCE *Populus deltoides* Temporarily Flooded Woodland Alliance

CLASSIFICATION CONFIDENCE LEVEL 1

USFWS WETLAND SYSTEM Upland

RANGE
Globally
This community is found in southern Manitoba, North Dakota, South Dakota, central and western Nebraska, western Kansas, eastern Colorado, and Oklahoma. It may occur in Texas and New Mexico.

Devils Tower National Monument
This community occurs on the floodplain of the Belle Fourche River.

ENVIRONMENTAL DESCRIPTION
Globally
This community is found along the banks of streams and rivers. It develops on newly deposited alluvium. The soils are predominantly sand, although silt, clay, or loam may be present. Soils are poorly developed. The water table fluctuates with the level of the river or stream and flooding is common, especially in the spring.

Devils Tower National Monument
This community occurs on level, alluvial soils on the floodplain of the Belle Fourche River.

MOST ABUNDANT SPECIES
Globally

Strata	Species
Tree canopy	*Populus deltoides, Salix amygdaloides*
Tall shrub	*Salix exigua*
Short shrub	*Symphoricarpos occidentalis*
Herbaceous	*Ambrosia psilostachya, Carex emoryi, Carex pellita, Equisetum arevense, Glycyrrhiza lepidota, Helianthus petiolaris, Pascopyrum smithii, Poa pratensis, Spartina pectinata, Sporobolus cryptandrus*

Devils Tower National Monument

Strata	Species
Tree canopy	*Populus deltoides*
Herbaceous	highly variable, often weedy

DIAGNOSTIC SPECIES
Globally
Populus deltoides, Salix amygdaloides, Salix exigua

Devils Tower National Monument
Populus deltoides

VEGETATION DESCRIPTION
Globally
This community has an open canopy dominated by *Populus deltoides* and *Salix amygdaloides* which reach 6-12 m. *Salix amygdaloides* is absent to common in examples of this community. *Fraxinus pennsylvanica* may be present, especially on the upland side of this community, and *Elaeagnus angustifolia* or *Juniperus* spp. may invade some sites. This woodland community has closely spaced shrubs and small trees. *Salix exigua* is usually more abundant along the streamside margins of this community and where the canopy of taller trees is most open. This shrub grows to 2-5 m tall. Other shorter shrubs that can be found are *Symphoricarpos occidentalis* and *Toxicodendron rydbergii*. Graminoids adapted to mesic sites dominate the understory of most sites, the most common species including Carex emoryi, C. pellita, Elymus canadensis, Hordeum jubatum, *Muhlenbergia racemosa, Pascopyrum smithii, Poa pratensis*, and *Spartina pectinata*. Forbs that are frequently abundant in relatively undisturbed sites include *Equisetum arvense* and *Glycyrrhiza lepidota*. Flooding often creates open patches in the herbaceous layer which are available for colonization by nearby species. The floristic composition of these patches is greatly affected by the species that are near and can invade the disturbed areas. Because of the high permeability of the sandy floodplain soils, species typical of upland prairie may invade in addition to annual forbs typical of disturbed sites. Widely distributed species that are adapted to these sites include *Ambrosia psilostachya, Artemisia campestris* ssp. *caudata, A. ludoviciana, Calamovilfa longifolia, Cenchrus longispinus, Euphorbia serpyllifolia, Grindelia squarrosa, Helianthus petiolaris, Heterotheca villosa, Lippia lanceolata, Opuntia macrorhiza*, and *Sporobolus cryptandrus*. These sites are prone to invasion by exotic grasses and forbs, the *most widely established being* Agrostis stolonifera, Bromus tectorum, Cirsium arvense, Kochia scoparia, Melilotus spp., *Taraxacum officinale*, and *Tragopogon dubius.*

Devils Tower National Monument
This community occurs as scattered small stands and individual trees. The healthiest stand is found in the area of the campground. No young trees were observed. *Salix amygdaloides* is present, but occurs only as widely scattered individuals, with no young trees observed. *S. exigua* is absent. *Quercus macrocarpa, Fraxinus pennsylvanica,* and *Acer negundo* are occasional. Stands where these species are more abundant are treated as the *Fraxinus pennsylvanica* - (Ulmus americana) / *Symphoricarpos occidentalis* Woodland. The herbaceous stratum is highly variable and often quite weedy.

OTHER NOTEWORTHY SPECIES Information not available.

CONSERVATION RANK G2G3

RANK JUSTIFICATION
In the absence of regular flooding, many sites will undergo succession to later seral stages. Many sites are overgrazed and invaded by exotic woody and herbaceous species.

DATABASE CODE CEGL000659

COMMENTS
Globally
Restoring natural flooding regimes in areas where water levels have been lowered will help maintain this community type. Occasional spring burning to control exotic species may also prove beneficial.

Devils Tower National Monument
This community differs significantly from previously described stands in that *Salix exigua* is absent. However, the Belle Fourche River floodplain has been severely impacted by flood control (Keyhole Reservoir) and herbicide use, and it is impossible to know what the community composition would be in an undisturbed state.

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